

Reaction No.	Catalyst	Temp (°C)	Reaction Time(hrs)	Reactant Volume Ratio CCl ₄ :R-H	Volume% Catalyst	Selectivity for CHCl ₃	R-Cl %	Observed R-Cl color
0 (Ex.2)	A	160	6	2:1	2.9	100	13.1	light brown
1	A	160	8	2:1	3.2	100	14.4	yellow
2	A	160	8	1.5:1	3.2	100	12.5	yellow
3	B	170	8	2:1	1.7	100	13.0	yellow
4	C	170	6	2:1	3.2	100	12.8	yellow
5	D	170	6	2:1	1.7	100	12.9	yellow
6	D	170	6	2:1	4.2	100	12.8	yellow-brown
7	A	150	12	2:1	3.2	100	12.1	yellow
8	A	170	6	2:1	3.2	100	14.6	yellow
9	A	180	6	2:1	3.2	95	14.2	brown
10	E	170	8	2:1	3.2	100	12.5	yellow

FIGURE 1

Reaction No.	Catalyst	Temp. (°C)	Reaction Time(hrs)	Reactant Volume Ratio CCl ₄ :R-H	Volume% Catalyst	Selectivity for CHCl ₃	R-Cl %	Observed R-Cl color
11	F	170	8	2:1	3.2	100	12.3	yellow
12	G	160	12	1:1	1.0	100	12.0	Color-less
13	H	170	8	2:1	5.0	100	13.3	yellow
14	I	160	3	2:1	10.0	100	14.5	light-brown
15	J	160	8	2:1	3.5	100	13.5	yellow
16	K	160	6	2:1	3.5	100	12.1	Color-less
17	I	160	6	2:1	3.5	100	12.4	yellow-brown
18	I	160	6	0.5:1	3.5	99.2	9.8	yellow
19	I	160	15	2:1	3.5	97.5	15.3	Brown
20	L	160	6	2:1	3.4	100	12.3	yellow
21	M	170	6	2:1	3.4	100	9.4	dark-brown

FIGURE 2